

Sub B' 52. A video hyperlinked annotation data system including a plurality of data structure elements comprising:

a first annotation data structure element including an object reference for an object in a video frame and a corresponding first identifier; and

a second annotation data structure element referenced by said first identifier, said second annotation data structure element including a first set of annotation data references.

53. The system of claim 52 further comprising at least one timing data indicator associated with at least one of said plurality of data structure elements.

54. The system of claim 53 wherein said timing data indicator indicates an expiration time.

55. The system of claim 53 wherein said timing data indicator indicates an activation time.

56. The system of claim 1 wherein said first annotation data structure element is associated with a set of video frames of a video program and wherein said second annotation data structure element is associated with said video program.

57. The system of claim 52 wherein said first data structure element and said second data structure element are transmitted separately.

58. The system of claim 52 wherein said first set of annotation data references includes an annotation data field and a second identifier referencing a third annotation data structure element.

59. The system according to claim 58 wherein said annotation data field is a title data field and said third annotation data structure element is a string including a title of said object.

60. The system according to claim 58 wherein said third annotation data structure element includes at least one display identifier for referencing a fourth data structure element to be displayed to a

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viewer and at least one action identifier referencing a fifth data structure element providing instructions so said system for actions to be taken by said system

61. The system according to claim 58 wherein said annotation data field is a variable parameter field.

62. The system according to claim 58 wherein said second identifier is a variable value.

63. The system according to claim 52 wherein said first and second identifiers are never duplicated by the system.

64. The system according to claim 52 further comprising a fifth data structure element including location and shape information about said object.

65. The system according to claim 64, wherein said fifth data structure element is associated with a video frame.

66. A method of generating a hyperlinked video signal annotation data system including a plurality of data structure elements comprising:

creating a first annotation data structure element including an object reference for an object in a video frame and a corresponding first identifier; and

creating a second annotation data structure element referenced by said first identifier, said second annotation data structure element including a first set of annotation data references.

67. The method of claim 66 further comprising creating at least one timing data indicator associated with at least one of said plurality of data structure elements.

68. The method of claim 67 wherein said timing data indicator indicates an expiration time.

69. The method of claim 67 wherein said timing data indicator indicates an activation time.

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70. The method of claim 66 wherein said first annotation data structure element is associated with a set of video frames of a video program and wherein said second annotation data structure element is associated with said video program.

71. The method of claim 66 wherein said first data structure element and said second data structure element are transmitted separately.

72. The method of claim 66 wherein said first set of annotation data references includes an annotation data field and a second identifier referencing a third annotation data structure element.

73. The method according to claim 72 wherein said annotation data field is a title data field and said third annotation data structure element is a string including a title of said object.

74. The method according to claim 72 wherein said third annotation data structure element includes at least one display identifier for referencing a fourth data structure element to be displayed to a viewer and at least one action identifier referencing a fifth data structure element providing instructions to said system for actions to be taken by said system.

75. The system according to claim 72 wherein said annotation data field is a variable parameter field.

76. The method according to claim 72 wherein said second identifier is a variable value.

77. The system according to claim 66 wherein said first and second identifiers are never duplicated by the system.

78. The system according to claim 66 further comprising creating a fifth data structure element including location and shape information about said object.